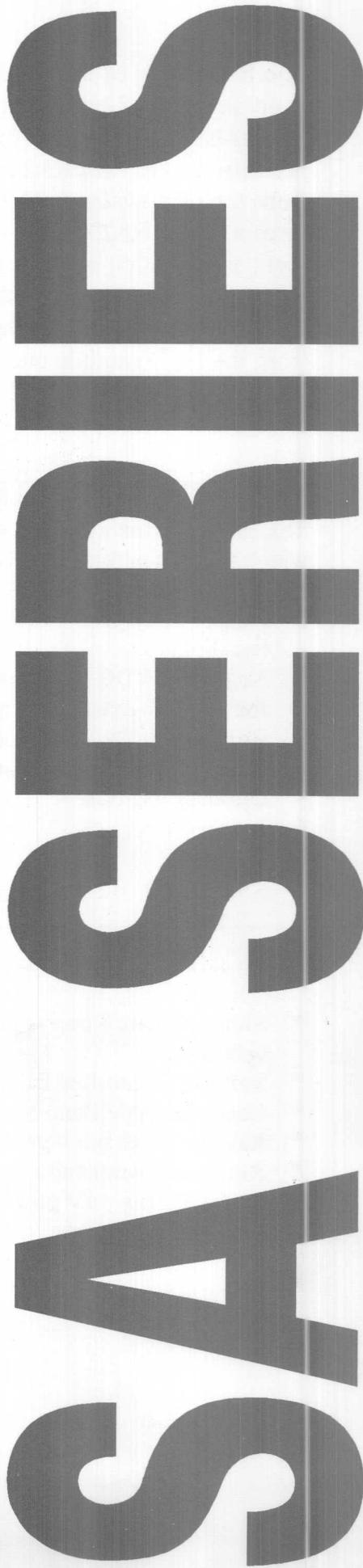
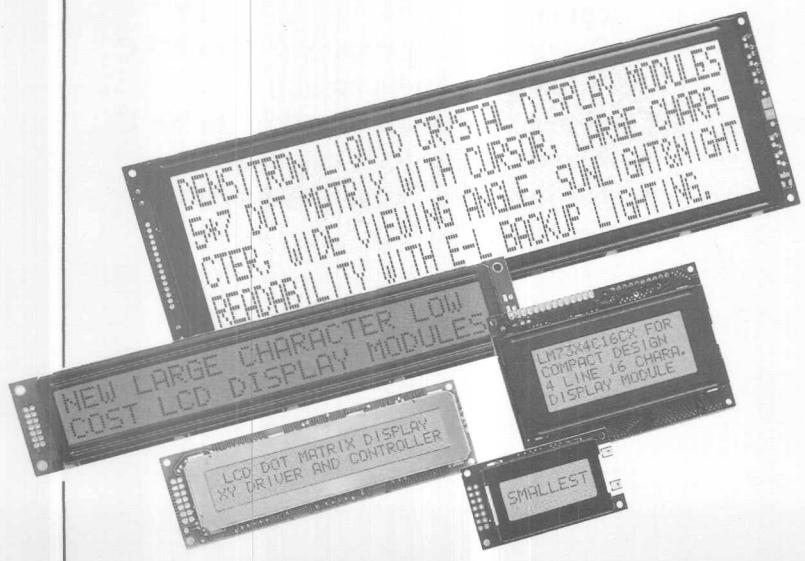


DENSITRON

SA SERIES RS232 CONTROLLER CARDS



The SA Series of RS232 interface cards allows any Densitron character module to be operated from any RS232 serial port. The SA card provides all the necessary control signals required by the on-board controller on the LCD module. The card uses unique software commands to perform all the functions required to operate the LCD. The SA card can be located up to 65 feet from the user system. The SA cards will allow two LCD modules to be controlled independently from a single RS232 port via a suitable cable assembly. The SA Series are currently available in eight sizes which allow the cards to be mechanically mounted to the back of selected Densitron LCD modules. If one of these eight SA series cards will not piggy-back mount on the Densitron LCD module you have selected, we recommend the SAA card. This card may be mounted separate from the LCD module and connected via a suitable cable assembly.

SPECIAL OPTIONS

The SA Series are available with two options which allows the following two functions to be performed by the card:

- * EL power inverter fitted on the card (for EL backlights.)
- * Negative 5VDC generator fitted on the card for use with extended Supertwist, and wide angle TN LCD modules
- * Custom designing of boards available
- * Optional I²C Bus.

APPLICATION BENEFITS

- * Use with any PC-controlled LCD application
- * Allows remote operation of all Densitron LCD character modules
- * Connect two LCD modules to a single RS232 channel (Consult factory for more details)

SPECIFICATIONS

- * Simple 3-wire Receive only RS232/RS422 operation
- * Software controlled EL backlight
- * User selectable Baud rates
- * Register level and high level command sets
- * Auto word wrap and cursor addressing supported
- * Requires only +5V power supply

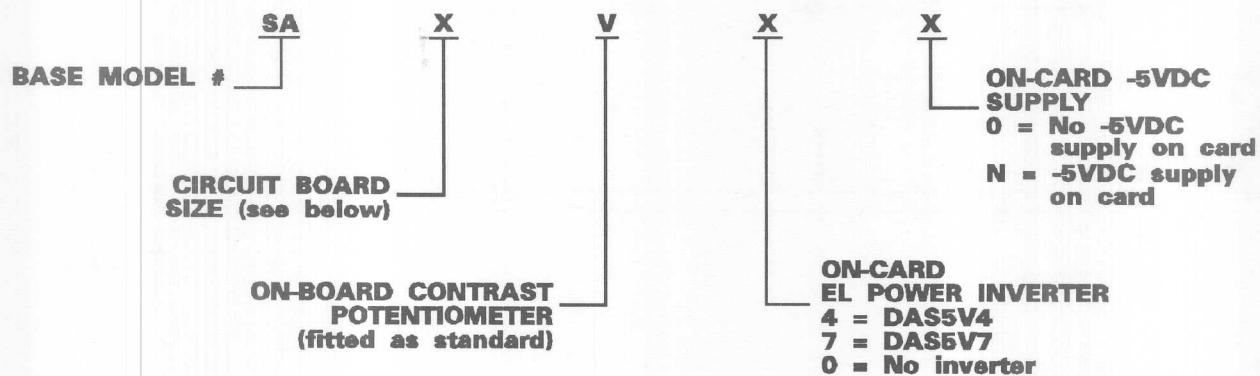
- * Supply Voltage: +5VDC
- * Power: 50mW (typ) without backlight option.
- * Operating Temperature: 0⁰ C to 70⁰ C (without backlight option)
- * Storage Temperature: -20⁰ C to 90⁰ C
- * Humidity: 0 to 95% non-condensing
- * For Extended Temp. Version please consult the factory

HARDWARE DESCRIPTION

The SA series card receives standard RS232 or RS422 signals and converts them to signals required by the HD44780 controller on the LCD module. The SA series card uses a set of unique software commands to enable the host computer to communicate with the LCD module. Each command performs a separate function on the LCD. Various special commands exist which allow software control of the backlight on selected LCD modules and the generation of the signals required by the HD44780 LCD controller. Other features include support for down-loading user defined characters, cursor addressing and vertical & horizontal scrolling of multi-line displays.

ORDERING INFORMATION

The following information explains the model number system for the SA Series cards and the displays which can be used.

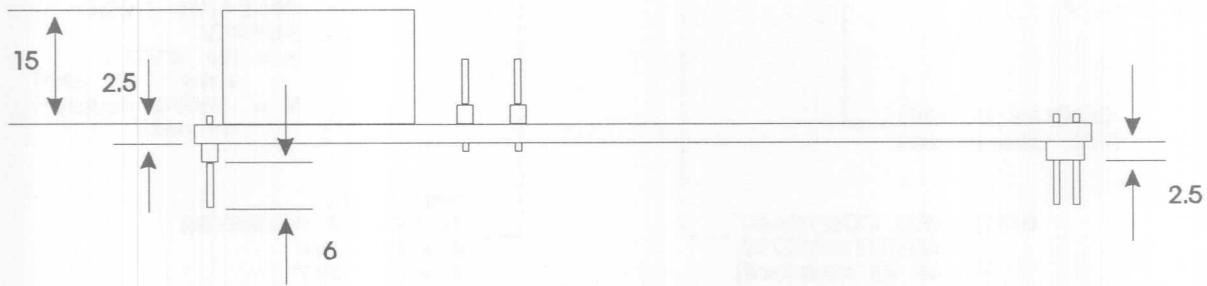
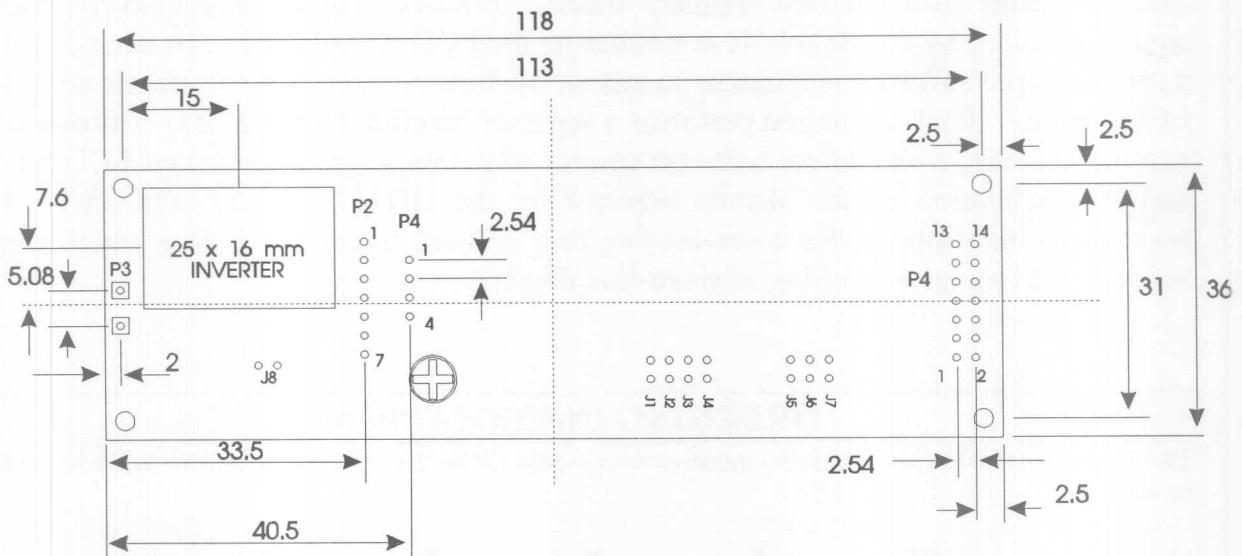


SELECTION TABLE

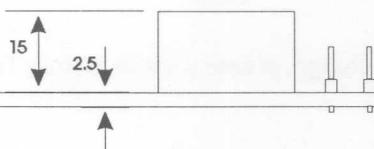
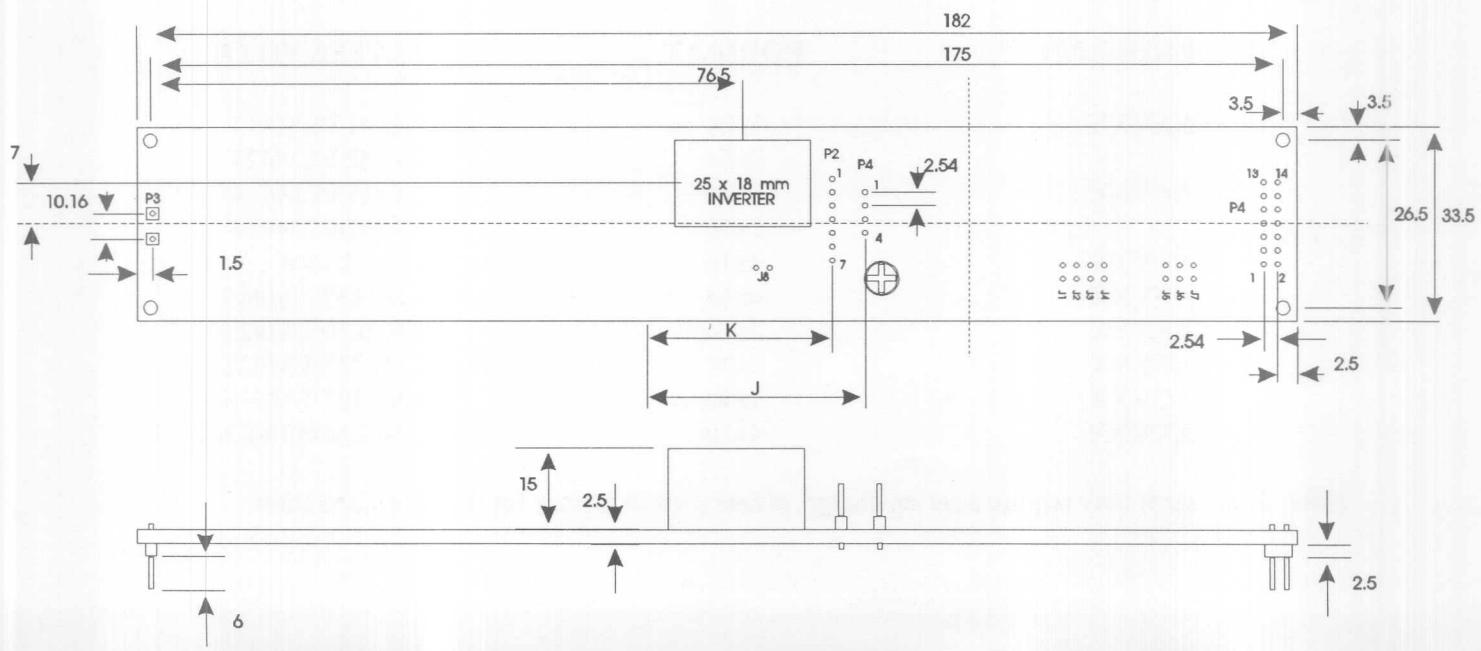
SA SERIES P/N	FORMAT	MATES WITH
SAAVXX	1x24 2x24	LM13/LM413 LM23/LM423
SABVXX	1x40	LM14/LM414
	2x40	LM24/LM424
SACVXX	4x40	LM44
SADVXX	4x40	LM2457/LM4457
SAEVXX	2x16	LM2230/LM4230
SAFVXX	2x24	LM2227/LM4227
SAGVXX	1x40	LM2131/LM4131
SAKVXX	4x20	LM2434/LM4434/LM4421

Note: Some sizes may require a set-up charge, please consult factory for further information

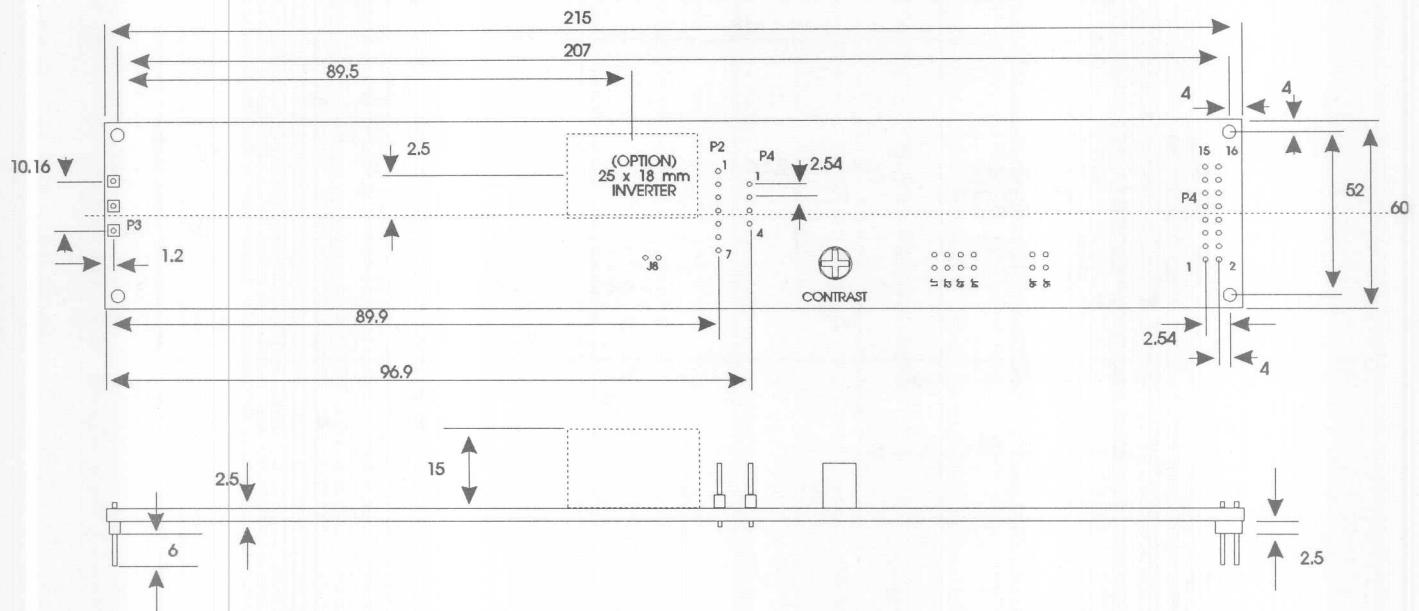
SAA



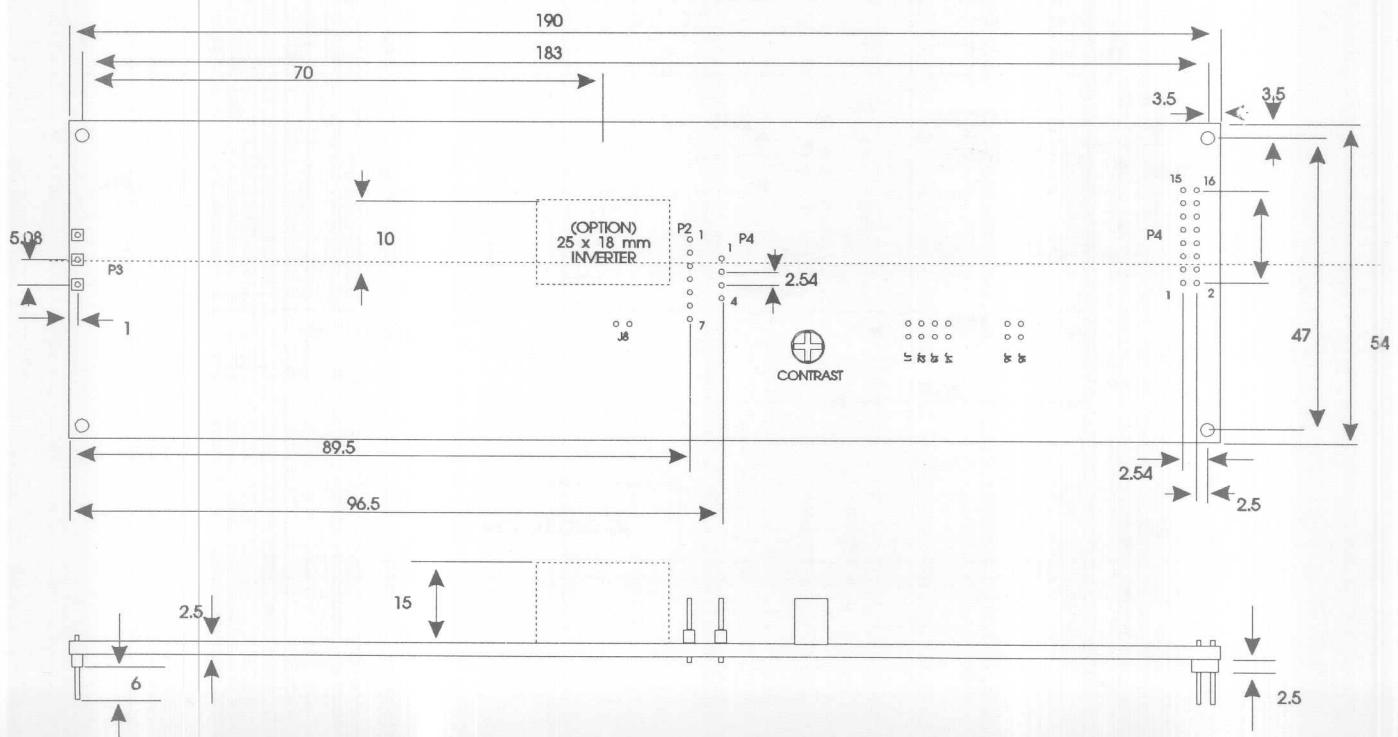
SAB



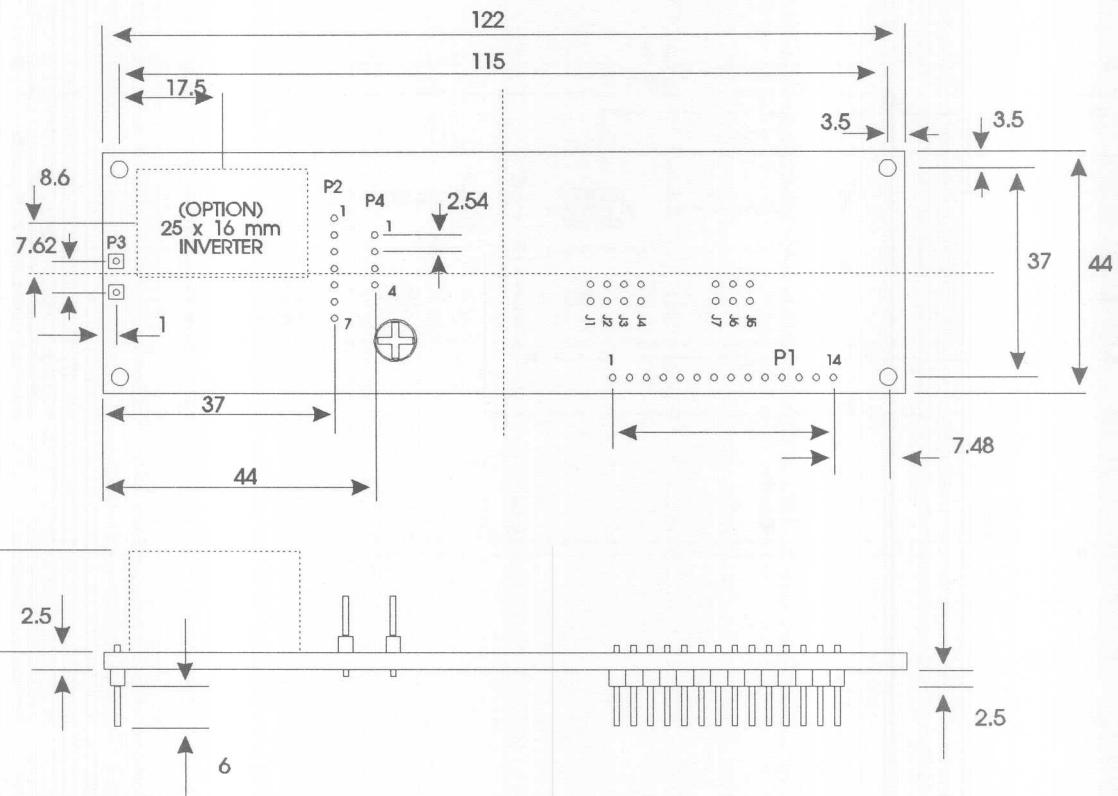
SAC



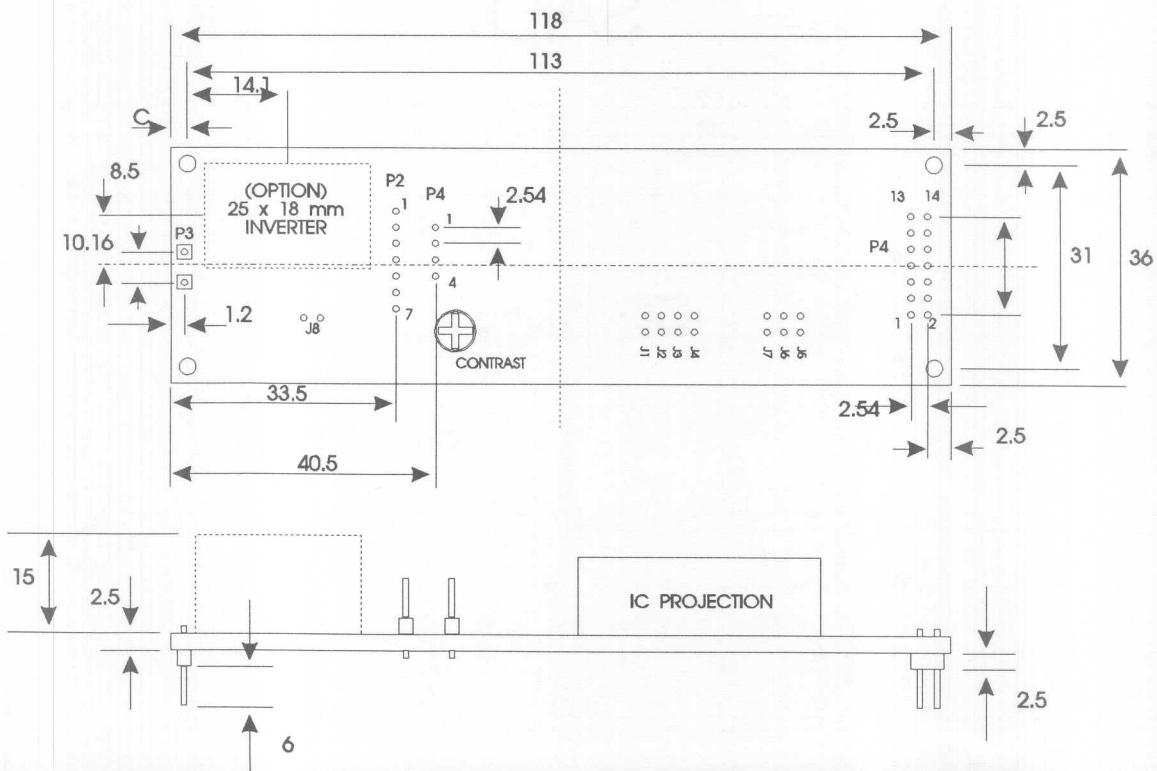
SAD



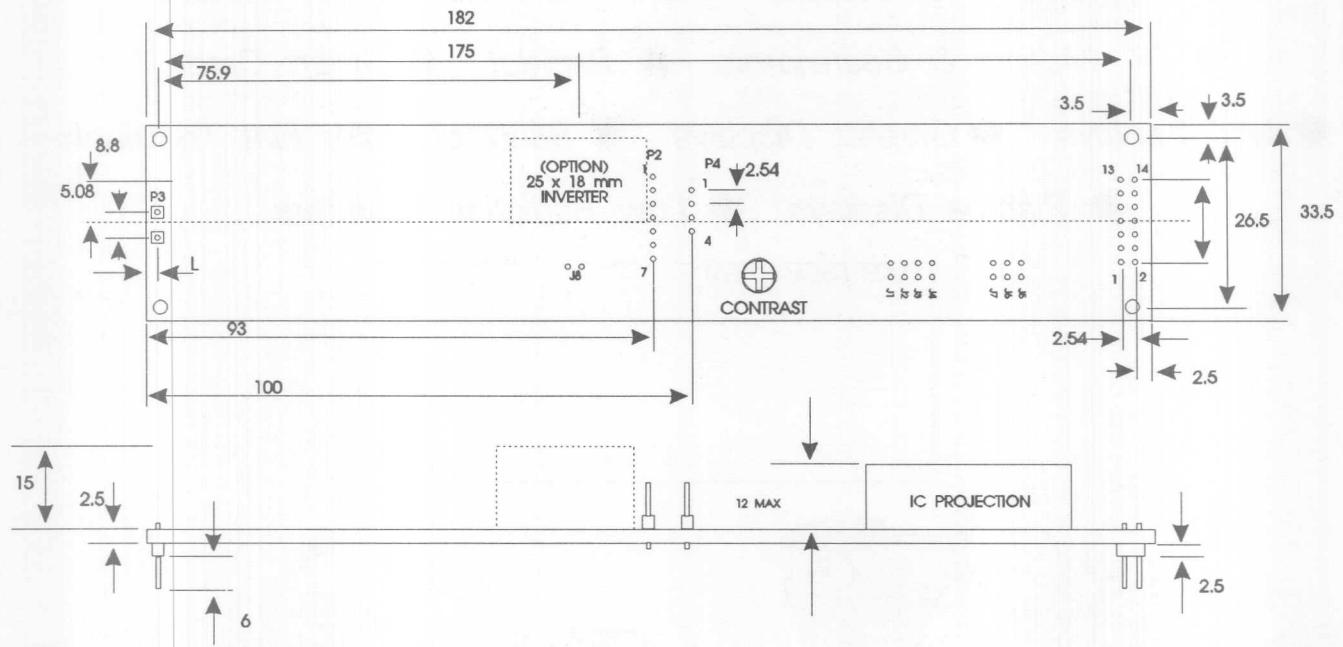
SAE



SAF



SAG



SAK

